

Serial No. 10/017,590
Amdt. dated January 6, 2006
Reply to Office Action of October 7, 2005

Docket No. HI-0047

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for downloading information in a wireless system, comprising:

communicating a request for a download operation from a base station controller to a base station;

downloading the information to at least one mobile station through a paging channel, the at least one mobile station storing the information; and

resetting the at least one mobile station using the stored information and reporting a downloading result from the at least one mobile station to the base station.

2. (Original) The method of claim 1, further comprising:

communicating a downloading start message to a plurality of mobile stations through the paging channel at the same time; and

communicating a downloading response signal of the plurality of mobile stations to the base station controller.

3. (Original) The method of claim 2, wherein the downloading start message includes information of a version of software to be downloaded to the plurality of mobile stations, a size of a file, and a hardware type.

4. (Original) The method of claim 1, wherein a plurality of mobile stations respectively receive the information according to a software version and a hardware type contained in a downloading start message.

5. (Original) The method of claim 1, further comprising:

- communicating data messages downloaded from the base station controller to the at least one mobile station, via the base station;
- sequentially storing, within the at least one mobile station, the downloaded data messages from the base station;
- communicating a downloading end message from the base station to the at least one mobile station, when the communication of the data messages is complete;
- determining with the at least one mobile station, whether the downloaded data messages are received with a normal state; and
- resetting the at least one mobile station, if the respective downloaded data messages are received with the normal state.

6. (Original) The method of claim 5, wherein the at least one mobile station stores the downloaded data messages in a different memory position than that used to store an existing software and the base station resets the at least one mobile station using the stored data messages when the downloaded data messages are received with the normal state.

7. (Original) The method of claim 5, wherein the base station resets the at least one mobile station using the downloaded data messages when the downloaded data messages are received with the normal state.

8. (Original) The method of claim 5, wherein the data messages are stored sequentially with associated sequential numbers, except a data message received with an error is stored without the associated sequential number.

9. (Original) The method of claim 8, wherein the data message received with the error is identified by the corresponding one of the associated sequential numbers as being received with an abnormal state and is downloaded again.

10. (Original) The method of claim 5, wherein when the downloaded data messages are all transmitted to the at least one mobile station and the base station transmits the downloading end message, including a final sequential number, to the at least one mobile station.

11. (Original) The method of claim 1, further comprising:
communicating a location register message from the at least one mobile station to the base station after resetting the at least one mobile station;
determining the downloading result during a predetermined time based on the location register message from the at least one mobile station; and
reporting the downloading result to the base station controller.

12. (Original) The method of claim 11, wherein the location register message includes a version of a current software and a hardware type.

13. (Original) The method of claim 1, wherein the information transmitted from the base station to the at least one mobile station is transmitted through the paging channel, according to a message queuing method.

14. (Original) The method of claim 5, wherein the data messages transmitted from the base station to the at least one mobile station are transmitted through the paging channel, according to a message queuing method.

15. (Currently amended) A method of communicating information, comprising:
~~sequentially~~ communicating data messages from a common terminal to distributed terminals;
storing the data messages in each of the distributed terminals; and
resetting an ~~operational mode~~ operation of the distributed terminals based on the stored data messages, wherein
the common terminal communicates each of the data messages to all of the distributed terminals simultaneously through a shared communication channel.

16. (Original) The method of claim 15, further comprising:
identifying each of the data messages by a sequential number contained within the respective data messages; and
storing the corresponding sequential number with each of the stored data messages.

17. (Original) The method of claim 15, further comprising:
 - identifying each of the data messages by a sequential number contained within the respective data message;
 - storing, within each of the respective distributed terminals, the corresponding sequential number with each of the stored data messages that is received without an error; and
 - identifying, with each of the respective distributed terminals, each of the data messages received with an error based on the stored sequential numbers, wherein each of the sequential numbers omitted from storage identifies a corresponding one of the data messages received by the respective distributed terminal with an error.
18. (Original) The method of claim 17, further comprising:
 - communicating, with each of the distributed terminals, each of the identified data messages received with an error to the common terminal; and
 - communicating each of the identified data messages received with an error from each of the respective distributed terminals to a system controller.
19. (Original) The method of claim 18, further comprising:
 - communicating the identified data messages, received by the respective distributed terminals with an error, to the respective distributed terminals again.

20. (Original) The method of claim 17, wherein:

the common terminal collects the identified data messages from the distributed terminals for a predetermined period of time.

21. (Original) The method of claim 15, further comprising:

communicating a request from a system controller to the common terminal to download a file to the distributed terminals;

communicating a download start message from the common terminal to the distributed terminals; and

communicating a download response message from the common terminal to the system controller indicating a status of a download operation, wherein

the download start message includes an identification of a file version, a file size, and a hardware type.

22. (Original) The method of claim 15, wherein:

the data messages are queued by the common terminal with broadcast messages and reception messages for communication to the distributed terminals; and

the queued messages are communicated in their respective order of arrival to a queue of the common terminal.

23. (Currently amended) A data communication method, comprising:
establishing a paging channel between a base station and a mobile station in a wireless ~~local loop~~-system; and
downloading program data in the wireless ~~local loop~~-system using the paging channel, wherein
the program data controls the mobile station.

24. (Original) The method of claim 23, wherein the program data transmitted through the paging channel are received in at least two mobile stations.

25. (Original) A base station subsystem, wherein the improvement comprises:
a first means for generating a broadcasting message;
a second means for generating a reception message;
a third means for generating a downloading message;
a message queue that queues the broadcasting message, the reception message, and the downloading message received from the first means, the second means, and the third means, respectively; and
a transmission means for transmitting the queued broadcasting, reception, and downloading messages through a paging channel of a wireless ~~local loop~~-system.

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26. (Currently amended) A wireless subscriber unit, comprising:
- a first means for receiving program data through a paging channel; and
 - a second means for changing a program of the subscriber unit based on the received program data.